X.—*Description of a New Generic Form of* Gobinæ *from the Amazon River.*

By Theo. Gill.

Read January 31, 1859.

Euctenogobius, Gill.

Body elongated, anteriorly subcylindrical, and thence gradually compressed towards the caudal fin.

Scales regularly imbricated and extending forward almost to the eyes; they are moderate in size on the sides, but rather small anterior to the dorsal fin; *all*, inclusive of those on the neck and back, are pectinated on their posterior margins, more or less angular near the middle, and with their surfaces sculptured with ridges diverging from the angles.

Head naked, oblong, compressed, with the profile from the eyes to the snout boldly curved.

Eyes approximated, situated mostly in the anterior half of the head.

Mouth slightly oblique, with the cleft extending more or less under the eyes.

Teeth small, in a single row in the upper jaw, and paucispiral on the lower.

Tongue laterally dilated, truncated anteriorly, and entirely attached to the floor of the mouth.

Dorsal fins entirely disconnected; the first triangular, the second oblong.

Caudal fin with a rounded margin.

Pectorals rounded or subacute, with all the rays connected by the membranes.

Ventrals with the interspinal membrane low or moderate.

This genus may very well be distinguished by the single row of small teeth in the upper jaw, and by the ctenoid scales extending on the back to within a short distance of the eyes. But

few of the *Gobies*, or at least, of those inhabiting the seas of China and Japan, and of the East Indies, appear to have this plan of squamation. In most of the species of those seas, although there are ctenoid scales on the sides, the scales of the anterior portion of the back and of the nape and head, when any are present, have a true cycloid structure with a more or less eccentric nucleus. Of all the species collected by the North Pacific Expedition, fitted out by the Federal government, but a single species has the same mode of squamation as the one now described ; it is a species which appears to have been named *Gobius platycephalus* by Sir John Richardson,* and was obtained at Hong Kong, China, by Mr. Stimpson, the naturalist of the Expedition. To that species, the present writer has given the generic name of *Glossogobius.* There is little necessity of a comparison of the present genus with that one, for the similar structures of the scales on the back is the only generic character they have in common *Glossogobius* has a depressed head, protruding lower jaw, an anteriorly free and deeply emarginated tongue, and several rows of stout teeth in each jaw, the outer of which are hooked backwards. *Eucteno-gobius* is also well distinguished by its single row of teeth in the upper jaw; in this it differs from all the described forms; but a species obtained during the cruise of the North Pacific Expedition has the same peculiarity ; it is, however, very distinct in other respects from the present, and will be hereafter described as the type of a new genus to which the name of *Synechogobius* has been given. The relations between that genus and *Eucte-nogobius*, are more intimate than with any others of the tribe, but *Synechogobius* is especially distinguished by the cycloid scales of the anterior portion of the back, the papillated tongue with parallel sides, and the larger teeth which are also on the margin of the jaw and not covered by the lips ; the lower jaw also projects beyond the upper, and the caudal fin *appears* to

* Report on the Ichthyology of the seas of China and Japan in Report of 15th Meeting of the British Association, &c., 1846, p. 204.

have been acute or pointed. But a single species has been ascertained; its habitat is unknown, but it is probably a Chinese fish; the color is a uniform dark or brownish bay. It will be more fully described at an early date.

Euctenogobius badius, Gill.

The elongated body is slender, with the height under the first dorsal fin nearly uniform; it there equals a seventh of the extreme length inclusive of the caudal fin. With the commencement of the second dorsal, the back commences to slope downwards as far as the end of that fin; the caudal peduncle is then nearly uniform in height to the base of its fin, but near that base its dorsal and inferior margins appear somewhat inflated from the recurrence upon them of the rudimentary rays of the fin; the height of the peduncle exceeds half of that at the dorsal. The abdominal outline is nearly straight. A transverse section at the pectorals exhibits an oval or ellipse.

The scales are firmly adherent to the body; there is an average number of ten radiating ridges. The number of scales in a row along the sides is about fifty, and from the dorsal to the anus, there are about eighteen.

The head from the snout to the opercular margin, forms little more than a sixth of the extreme length of the fish. The curve from the dorsal fin to the end of the scaly area is very slight, but between the latter and the eyes there is a slight depression; the height is there somewhat more than two-thirds of the head's length. The greatest breadth equals the height at the eyes; the curve of the profile from the eyes to the snout is very oblique.

Behind the eyes, there is a slightly curved line of pores with the convexity anterior; a pore is also above each eye, and two are on the upper half of the ascending margin of the pre-operculum. There is also a diagonal line of bead-like pores on the surface of the sub-operculum, the angle of which line is at the lower part of the ascending margin of the plate.

The eye has a diameter equalling a quarter of the length of the head, and is almost entirely situated in the anterior half of the head; the inter-orbital space is only three-tenths of a diameter.

The first dorsal commences at the second-sixth of the total length.

The caudal constitutes nearly a fifth of the whole length, and when expanded its margin is regularly rounded.

The pectorals are nearly equal to a sixth of the total length; the margin is rounded and the base slightly emarginated. The rays are well connected by the membrane.

The radial formula is as follows :—

D. VI.—1·10$\frac{1}{1}$ A. 1.10$\frac{1}{1}$ G. 4, 7, 6, 4. P. 17, V. 1, 5+5.1.

The genital papilla is transversely compressed and subquadrate, and is received in a depression, so that its surface is nearly on a line with the abdomen.

The color is reddish-brown or dark bay, with a posteriorly straight hoary dot in the centre of each scale; on the back and sides above, the head is plumbeous, with two livid blue bands extending from the eye to the upper jaw. The caudal is crossed by about seven bars, which are obsolete in the membrane.

This is a species which is very easily distinguished by a certain neatness and compactness of form, and by its almost uniform color; the spots are not distinct as in many of the species which are inhabitants of the Eastern seas, but are simply manifested in obscure parallel lines. The caudal fin is alone barred; the others are almost uniform in their color.

A single specimen was obtained some years ago by Mr. A. Edwards in the Amazon river, and was presented to Mr. Charles A. Wheatley, who has placed it in the Museum of the New York Lyceum. It was given with the *Pimeletropis lateralis*, *Gill*, but it is not stated whether it was taken in company with it or otherwise; its aspect appears to indicate that it is a fresh-water fish.